

# **\*\*ATTENTION\*\***

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# Majestic denizens of the skies



## *Washington's bald eagles and where to see them*

Perched on an old, weathered snag or flying against an azure sky, the bald eagle is a majestic sight. We Washington residents may consider ourselves lucky to live in a state where this spectacular bird is relatively common all year. During the spring and summer, ferry passengers and boaters in the San Juans or hikers along the northern Olympic Coast have an excellent chance to see our national symbol. In the winter bald eagles gather in large numbers along some of the major west-side rivers and are easily seen from the highway.

With snow-white head and tail in striking contrast to a dark brown body and wings, the bald eagle is about three feet long and has a six-and-a-half to seven-and-a-half foot wing span. Adults weigh from 10 to 12 pounds, and, like other birds of prey, the females are larger than males.

Young bald eagles are as big as their parents but lack the adults' impressive colors. In their first year they are uniformly dark brown. As they mature, they pass through stages of irregularly mottled white until the fourth and fifth years when the white head and tail begin to appear and the body again becomes dark. Eagles can breed in about their sixth year. They mate for life and may live over 30 years in the wild.





The bald eagle is almost entirely restricted to the United States and Canada, although its range reaches into Mexico along the Baja Peninsula and into Siberia, where it breeds on offshore islands in the Bering Sea. Washington's bald eagles belong to the northern subspecies and are larger than those of the endangered southern subspecies. The two races probably cannot be separated by a geographical line, but the Endangered Species Preservation Act of 1966 arbitrarily set the 40th parallel as the southern edge of the northern bald eagle's range.

Over 300 nests have been located in Washington and about half of these are active each year. Nest numbers alone place Washington among the top three or four states for bald eagle populations in the contiguous United States.

Associated with aquatic ecosystems, bald eagles feed mainly on fish, but their diet also includes aquatic birds and some mammals. They are often seen swooping low and using their talons to catch fish swimming near the surface, and they have been known to work together to capture rabbits by flushing them from cover.

These birds are opportunistic and not very particular about what they eat. They feed heavily on carrion, a fact that has alienated many sheep ranchers who have seen bald eagles feeding on

lamb carcasses and mistakenly assumed the eagles made the kills.

Eagles are incapable of carrying off large mammals. Experiments with a captive golden eagle showed eight pounds to be the most it could carry, and then only for a few yards. Even four pounds was found to be a strain on the bird.

## Nesting

Most bald eagle nests, or eyries, in Washington are along the marine coastline. Some nests occur along lakes and rivers, but, surprisingly, areas of high winter concentrations are not used much for nesting. Regardless of water type, nearly all nests are within 200 yards of shore.

In choosing a stand of timber for nesting, bald eagles seem to prefer breaks in the crown cover and unevenness in the tree heights. Instead of towering above the surrounding timber, nest trees are usually no taller than other large trees in the stand.

Douglas fir is the most common nest tree in western Washington, but sitka spruce is also frequently used on the Olympic Peninsula. Although sometimes





broken-topped, nest trees are almost always living, with foliage often hiding nests from the eyes of a casual observer. Older, larger trees with strong branching are required to support the eagle's massive nest.

The nest itself is made of interwoven sticks and measures five to eight feet across and two to six feet high. The top is lined with dried grasses and other soft plant material in which a shallow depression is formed. Its size reflects the number of years it has been used, since a pair of eagles will return to the same territory year after year and add material to the nest.

Occasionally a nesting pair will build several nests. They may use two or three nests alternately in successive years, or nests may be started and not finished. Often, inactive nests are used as perches and feeding stations. Bald eagles need perches within their breeding territories, especially along shore, where they can take a commanding view of their domain.

Washington's bald eagles return to their nesting territories sometime in February, but seasonal weather changes and differences between pairs can account for as much as a month's variation in the onset of nesting. After a period of courtship and nest repair the female lays

one to three eggs in late March or April. Incubation lasts 35 days, and the parents share this responsibility as well as the later feeding of the young.

After they hatch, usually in May, the eaglets are downy and white for the first week or so. They molt into a gray, wool-like postnatal down, which lasts until their dark brown juvenile plumage comes in at about the seventh or eighth week. They spend their remaining two to four weeks in the nest exercising their wings in preparation for their first flights, which normally occur in July.

Although the fledging success of Washington's eagle nests is high, biologists are concerned about their low productivity -- that is, the number of nests with only one eaglet. Low productivity is one of the first effects of a chemically contaminated environment, since chemical pollutants may cause eagles to lay eggs with thinner, fragile shells or even make adult birds sterile.

## Observing bald eagles

The San Juan Islands and the northern Olympic Coast are areas of high nesting concentration, where a careful scan of shoreline trees will often reveal a perched eagle. Keep a lookout overhead, too, for a bird in flight or soaring on a wind current. Occasionally you can see the large stick nests from the beach or from offshore. If you are in a boat, remain quiet and stay well offshore -- you may be rewarded with a glimpse of the young eagle standing in the nest, especially in late June or July.

Eagles are especially susceptible to disturbance during the early nesting season, so avoid approaching the nests too closely. Tramping around the nest tree for a better view or walking directly beneath it can cause the adults to abandon the nest. When you seen one or both adults take wing and circle overhead, calling, you are too close and should leave the area immedi-

# Management

ately, even if you haven't seen the nest.

Wintering areas are also critical to the bald eagle's survival, and they provide additional opportunities for watching eagles. In these areas great numbers of adults and juveniles gather to take advantage of waterfowl concentrations, salmon runs or other areas of open water and abundant food. The Northwest, including Washington, Oregon, Idaho and Montana, represents one of four major wintering areas for bald eagles. The other areas are the Mississippi and Missouri river basins and Chesapeake Bay.

The Skagit River is the most important wintering area in western Washington. Up to 300 eagles congregate there each year during the winter. Feeding mostly on spawned-out salmon, eagles usually arrive in December and remain until February. Another large concentration of wintering eagles occurs on the Nooksack River.

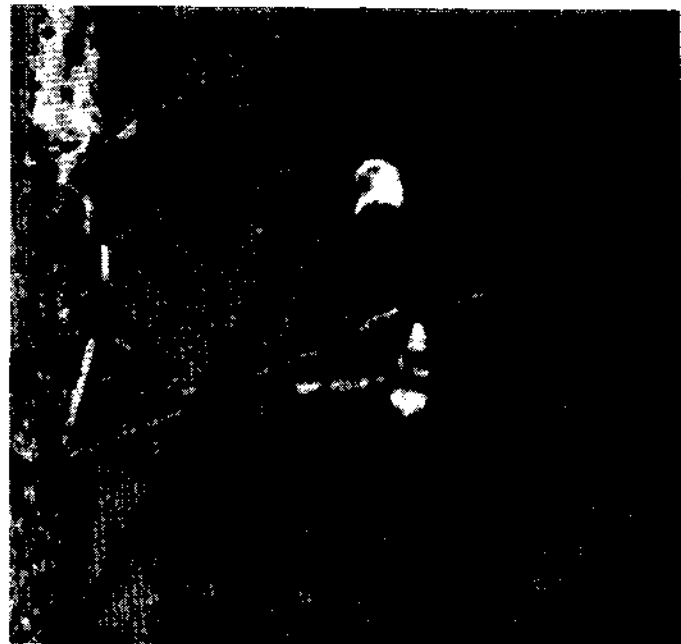
Both these rivers provide some ideal places to observe eagles. More birds can be seen together with less danger of disturbance than in the summer. But watching these wintering birds still demands caution and common sense. Food is often scarce in winter, and fluctuating water levels can clean the gravel bars of salmon carcasses in hours. Eagles frightened off their feeding areas by unwary fishermen or overzealous observers may be deprived of a critical meal.

The best and easiest way to study bald eagles at these wintering areas is to remain in your car along the edge of the highway where there is a view of gravel bars in the river. Binoculars or a spotting scope may be useful in watching eagles feed, usually in the early morning.

Lesser numbers of wintering eagles are found in the San Juans, primarily on San Juan Island, where rabbits are a plentiful source of food.

In 1978, the northern bald eagle was listed as threatened by the U.S. Fish and Wildlife Service. Management of bald eagles in Washington has received increased emphasis during the past few years. The Washington State Game Commission now classifies the bald eagle as a sensitive species in Washington, indicating it is potentially endangered within the state.

The first major step towards conservation of bald eagles within Washington occurred in 1976, when the Skagit Bald Eagle Natural Area was established. It is located between Rockport and Marblemount on the Skagit River; and includes the seven miles of river most used by bald eagles. Up to three hundred birds congregate at this location during winter months.



The U.S. Fish and Wildlife Service has developed management guidelines for bald eagles in Oregon and Washington. The guidelines are divided into three categories: nesting, roosting, and feeding areas. Each have recommendations to minimize disturbance of bald eagles. The primary zone is the most critical area immediately surrounding the nest during the breeding season. The 330-foot radius is necessary to minimize disturbance of nesting eagles. Human activities









likely to create disturbance include: constructing and logging practices, low level aircraft operations, and human entry into the primary nesting zone. The secondary (buffer) zone, a radius of 660 feet, is an additional management recommendation to further minimize disturbance. The recommendations for feeding and roosting areas are also designed to minimize disturbance of bald eagles and maintain areas which they depend on.

The Department of Game's Nongame Wildlife Program has conducted bald eagle studies for several years. Part

of the studies included taking measurements of the nest, its distance to the ground and to water, and analysis of surrounding vegetation. Nests are also censused each year to determine productivity.

The National Wildlife Federation sponsors a midwinter bald eagle survey each year which the Department of Game coordinates. Over 895 people volunteered to help count bald eagles during the 1981 midwinter survey; and more than 1,600 eagles were observed during the survey. The people represent both public and private sectors.

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